

Usage of the SiPixelQuality DB in order to disable BmO Sec3 Lyr1,2

Tamas Almos VAMI

Wigner RCP IPNP, Hungarian Academy of Sciences, Budapest

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- BmO Sec3 problem
- If Sec3 Lyr1 and Sec3 Lyr2 is not used
- then Sec3 Lyr3 is working
- Implementation into the software using the SiPixelQuality DB
 - It can be done in the digitizer and the raw2dig as well
 - (details in "ROC killing via SiPixelQuality DB at the digitizer and raw2digi level")



Modules and DetIDs in the SEC3 LYR1 and SEC3 LYR2

Layer1

BPix BmO SEC3 LYR1 LDR4 MOD4 302057732

BPix BmO SEC3 LYR1 LDR4 MOD3 302057736

BPix BmO SEC3 LYR1 LDR4 MOD2 302057740

BPix BmO SEC3 LYR1 LDR4 MOD1 302057744

Layer2

BPix BmO SEC3 LYR2 LDR5 MOD4 302124292

BPix BmO SEC3 LYR2 LDR5 MOD3 302124296

BPix BmO SEC3 LYR2 LDR5 MOD2 302124300

BPix BmO SEC3 LYR2 LDR5 MOD1 302124304

BPix BmO SEC3 LYR2 LDR6 MOD4 302124548

BPix BmO SEC3 LYR2 LDR6 MOD3 302124552

BPix BmO SEC3 LYR2 LDR6 MOD2 302124556

BPix BmO SEC3 LYR2 LDR6 MOD1 302124560



- A payload has been created
- It can be found at:
 - `/afs/cern.ch/user/t/tvami/public/Validation/IOV23/SiPixelQuality_v23_3.db`
- Example config:
 - `/afs/cern.ch/user/t/tvami/public/Validation/IOV23/SiPixelQuality/example.py`
- Put into the code the followings:



Put into the code

```
process.siPixelDigis.UseQualityInfo = cms.bool(True)
import CalibTracker.Configuration.Common.PoolDBESSource_cfi
# ----- SiPixelQuality -----

process.SiPixelQualityDBReader = cms.ESSource("PoolDBESSource",
    BlobStreamerName = cms.untracked.string('TBufferBlobStreamingService'),
    DBParameters = cms.PSet(
        messageLevel = cms.untracked.int32(0),
        authenticationPath = cms.untracked.string('')
    ),
    connect = cms.string('sqlite_file:SiPixelQuality_v23_3.db'),
    toGet = cms.VPSet(
        cms.PSet(
            record = cms.string('SiPixelQualityFromDbRcd'),
            tag = cms.string('SiPixelQuality_v23')
        )
    )
)
process.es_prefer_Quality = cms.ESPrefer("PoolDBESSource","SiPixelQualityDBRead
#-----
```



Validation plot

